

Lesson Name: Wood Types Research Project  
Course: Woods  
Grade Level: 9-12  
Unit: Materials in Woodworking

**Goals:**

For students to be able to identify hardwood and softwood types

**Objectives:**

- Describe the characteristics of hardwood and softwood trees
- Identify common hardwood types and explain their uses in woodworking
- Identify common softwood types and explain their uses in woodworking
- Be able to identify wood types found around their home

**Time Frame:**

- This lesson should take 3 days

**Materials:**

- [How to Identify Hardwoods and Softwoods Video](#)
- Directions handout with resources and rubric
- Example student presentation

**Procedure:**

1. Show the [video](#) to introduce the topic
2. Breakout rooms for class discussion questions:
  - a. Does the name hardwood or softwood determine how hard or soft the wood is from the tree?
  - b. How can you tell if a tree is a hardwood tree or softwood tree?
  - c. What are common uses for softwoods?
  - d. What are common uses for hardwoods?
  - e. What is 'grain'?
3. Bring the students back to the main room and have each group share out their answers to the discussion questions.
4. Hand out the directions and rubric and review with the class to clarify the requirements for the research project and how to submit.
5. Use the rest of class time for students to copy the presentation template and start their research.
6. Ticket out the door: "Share one interesting or surprising thing you learned today about wood types"

Give the students 2 working days to complete their research project

**Assessment:**

- Students will be graded using the rubric on the directions document

## Wood Types Research Project

### Introduction

When choosing materials for a project it's important to know what type of wood you should use so your end product is functional and attractive. In this research project you are going to learn the difference between hardwood and softwood trees, and how to identify various common wood types along with their characteristics and uses.

### Assignment

Create a presentation to share your wood types research. You can create a Google slideshow, video of you giving a presentation, make a prezzi, or any other presentation app that allows you to share your research in a clear way.

You need to include visual representations to make the presentation visually appealing as well as informative.

You will be graded on accuracy of information, spelling, grammar, and if your presentation is easy to understand or read.

Slide #	Description of what should be on the slide	Points
Slide 1	Title Slide - Include your name, title of presentation, course name, class period	2
Slide 2	Introduction - Explain why knowing different wood types is important for woodworking	2
Slide 3	Hardwoods vs. Softwoods - Give a brief summary of the difference between hardwood trees and softwood trees	2
Slide 4	Oak - Provide a brief description of the characteristics of oak wood and how it is commonly used. Include photos of oak lumber and items made out of oak.	5
Slide 5	Poplar - Provide a brief description of the characteristics of poplar wood and how it is commonly used. Include photos of poplar lumber and items made out of poplar.	5
Slide 6	Maple - Provide a brief description of the characteristics of Maple wood and how it is commonly used. Include photos of maple lumber and items made out of maple.	5
Slide 7	Cherry	5

	<ul style="list-style-type: none"> <li>- Provide a brief description of the characteristics of cherry wood and how it is commonly used. Include photos of cherry lumber and items made out of cherry</li> </ul>	
Slide 8	<p>Mahogany</p> <ul style="list-style-type: none"> <li>- Provide a brief description of the characteristics of mahogany wood and how it is commonly used. Include photos of mahogany lumber and items made out of mahogany.</li> </ul>	5
Slide 9	<p>Pine</p> <ul style="list-style-type: none"> <li>- Provide a brief description of the characteristics of pine wood and how it is commonly used. Include photos of pine lumber and items made out of pine</li> </ul>	5
Slide 10	<p>Spruce</p> <ul style="list-style-type: none"> <li>- Provide a brief description of the characteristics of spruce wood and how it is commonly used. Include photos of spruce lumber and items made out of spruce.</li> </ul>	5
Slide 11	<p>Cedar</p> <ul style="list-style-type: none"> <li>- Provide a brief description of the characteristics of cedar wood and how it is commonly used. Include photos of cedar lumber and items made out of cedar.</li> </ul>	5
Slide 12	<p>Fir</p> <ul style="list-style-type: none"> <li>- Provide a brief description of the characteristics of fir wood and how it is commonly used. Include photos of fir lumber and items made out of fir</li> </ul>	5
Slide 13	<p>Scavenger Hunt</p> <ul style="list-style-type: none"> <li>- Look around your home for items made out of wood (cabinets, furniture, doors, window frames, picture frames, trim)</li> <li>- Choose 3 items from what you found and take a photo of each one and put them on this slide. Based on your research do your best to identify the wood type of each item.</li> </ul>	6
Slide 14	<p>Summary</p> <ul style="list-style-type: none"> <li>- On this slide summarize what you learned about wood types. Share what you found interesting or surprising during your research.</li> </ul>	3

## **Resources**

These websites are a good starting point for your research but are by no means a comprehensive list of places to find information about wood types. You can also do general [www.google.com](http://www.google.com) searches for specific questions you have.

- [Hardwood vs. Softwoods: Understanding the difference](#) part 1
- [Hardwood vs. Softwoods: Understanding the difference](#) part 2

- [Hardwood vs. Softwoods Comparison Chart](#)
- [Wood Types](#)
- [How to Recognize Different Wood Species](#)
- [Wood Tones](#) (for help with the scavenger hunt)

### **Grading/Rubric**

You will be graded on completeness and accuracy of content on each slide. All content should be written in your own words. Make sure you include images on each slide that directly relate to the content.

**Total Points: 60**